

8. The method of claim 7 further comprising the step of implementing a system of credit allocation to control the maximum number of bytes of data transmitted.

9. The method of claim 8 wherein said step of implementing is carried out to optimize performance of said modem.

10. The method of claim 5 further comprising the steps of providing a memory space in said modem and allocating a portion of said memory space to each of said logical channels.

11. The method of claim 10 further comprising the step of tracking the memory allocated to each of said logical channels with a software credit counter.

12. The method of claim 11 further comprising the step of swapping memory allocated to each of said logical channels responsive to said data block request message.

13. The method of claim 11 further comprising the step of suspending data transfer if the memory allocated to a logical channel is insufficient to accommodate a requested data block.

14. The method of claim 4 further comprising transmitting a data transfer message.

15. The method of claim 14 wherein said step of transmitting a data transfer message further comprising transmitting information indicating the size of the data block transferred.

16. The modem of claim 1 further comprising an MCU coupled to said physical channel.

17. The modem of claim 16 wherein said MCU comprises a mailbox memory for storing said command information.